

REMARKS

In the Office Action, the Examiner rejected claims 1-38. By the present Response, Applicants amend claims 1, 11, 19, and 29 to further clarify the claimed subject matter. Upon entry of the amendments, claims 1-38 will remain pending in the present patent application. Applicants respectfully request reconsideration of the above-referenced application in view of the foregoing amendments and following remarks.

As a preliminary matter, Applicants thank the Examiner for his Response to Arguments provided in the recent Office Action. *See* Final Office Action mailed April 5, 2005, page 2. Particularly, the Examiner recognized that Applicants previously argued that the presently recited leakage suppression circuit suppresses leakage current entering the control circuit, but asserted that claims 1, 11, 19, 29, and 34 are not limited to this type of leakage current. *See id.* While Applicants do not necessarily agree with this assertion, in view of the Examiner's remarks, Applicants have amended the present claims in the manner indicated above in order to further clarify the recited subject matter, including the type of currents suppressed by the leakage current suppression circuit. In view of this clarification, Applicants respectfully submit that the present claims clearly recite elements that are neither disclosed nor suggested by the art of record. Accordingly, Applicants respectfully request withdrawal of the present rejections and allowance of all pending claims. However, should the Examiner believe any further clarification is necessary, Applicants kindly invite the Examiner to contact the undersigned at the telephone number provided below to discuss any remaining concerns.

Objections to the Specification

In the Office Action, the Examiner objected to the specification for allegedly failing to disclose a current suppression circuit coupled in parallel with the relay. While Applicants do not necessarily agree with this assertion, Applicants have chosen to amend the present claims to remove any recitation of such an arrangement. As such, Applicants

believe the objection is moot. Accordingly, Applicants respectfully request withdrawal of the Examiner's objection to the specification.

Rejections Under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 1, 11, 19, and 29 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Specifically, the Examiner noted that there was insufficient antecedent basis for "a leakage current suppression circuit is coupled electrically in parallel with the relay" as recited in claims 1, 11, 19, and 29. As indicated above, Applicants have amended claims 1, 11, 19, and 29 to remove such recitations. In light of these amendments, Applicants respectfully request withdrawal of the rejection of claims 1, 11, 19, and 29 under 35 U.S.C. § 112.

Rejections Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-3, 7-10, 19, 20, 26-28, and 34-38 under 35 U.S.C. § 102(a) as anticipated by Nevo (U.S. Patent No. 6,522,033). Applicants respectfully traverse this rejection.

Legal Precedent

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Moreover, the prior art reference also must show the identical invention "in as complete detail as contained in the ... claim" to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Applicants need only point to a

single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

Omitted Features of Independent Claims 1, 19, and 34

Turning now to the present claims, the Nevo reference fails to disclose each element of independent claims 1, 19, and 34. For instance, independent claim 1 recites “a leakage current suppression circuit configured to ... *conduct leakage current leaking into the control circuit*” (emphasis added). Similarly, independent claim 19 recites “a leakage current suppression circuit ... operative to *conduct leakage current leaking into the control circuit*” (emphasis added). Notably, claims 1 and 19 also variously recite controlling a switch in view of a comparison of a control signal to an *input* leakage current threshold. Additionally, independent claim 34 recites “controlling a conductive state of a solid state switch in series with a relay coil such that the relay coil is energized if a current level of an input control signal is above a predetermined *input leakage current* threshold level” (emphasis added). Because the Nevo reference fails to disclose such elements, the cited reference fails to anticipate independent claims 1, 19, and 34.

The Nevo reference is generally directed to electrical switching and control circuits. Col. 1, lines 11-12. Particularly, the Nevo reference teaches an apparatus for detecting apparent ground faults and producing a switching signal in response to a fault. Col. 3, lines 6-21. Applicants recognize that the Nevo reference does use the term “leakage current.” *See, e.g.,* col. 4, lines 49-60. However, Applicants respectfully submit that the Nevo reference employs this term to denote current leaking to ground via the ground fault. Thus, the term “leakage current” as used in the cited reference refers to current that is leaking *out of* the Nevo system.

Conversely, the present application discloses a circuit for suppressing unintentional current that may be present in the control circuit. Page 6, lines 24-25.

Accordingly, in the present disclosure, leakage current refers to this *unintentional current present in the control circuit*. Applicants also note that the background portion of the present disclosure clearly supports this meaning, reciting a particular need for circuitry that “can suppress leakage current *in* relay circuits.” Page 2, lines 3-5. Accordingly, the present techniques employ a leakage current suppression circuit to prevent this unintentional current entering the control circuit from energizing the relay operator. Page 6, line 24 – page 7, line 6.

In view of the discussion provided immediately above, it is clear that the Nevo reference, at best, discloses the discontinuation of an *output* leakage current from the apparatus (i.e., current leaking *out of* the system). However, the cited reference fails to mention any current leaking *into* the disclosed apparatus, and thus similarly fails to disclose any structure reasonably comparable to “a leakage current suppression circuit configured to ... conduct leakage current leaking *into* the control circuit” or controlling the switch in response to a comparison of a control signal and an *input* leakage current threshold. Consequently, the Nevo reference fails to anticipate independent claim 1, 19, or 34, or the claims depending therefrom.

For these reasons, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102 and allowance of claims 1-3, 7-10, 19, 20, 26-28, and 34-38.

Rejections Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 4-6, 11-18, and 23-25 under 35 U.S.C. § 103(a) as anticipated by Nevo in view of Vassos (U.S. Patent No. 3,633,070). The Examiner also rejected claims 21, 22, and 29-33 as being unpatentable over Gernhardt et al. (U.S. Patent No. 5,864,455) in view of Nevo. Applicants respectfully traverse these rejections.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

Omitted Features of Independent Claims 11 and 29

Applicants respectfully note that the Nevo, Gernhardt et al., and Vassos references fail to disclose each element of independent claims 11 and 29. For instance, independent claim 11 recites “a leakage current suppression circuit configured to ... conduct leakage current *leaking into the control circuit*” (emphasis added). Independent claim 29 recites “a leakage current suppression circuit ... operative to conduct leakage current *leaking into the terminal block relay assembly*” (emphasis added). Further, each of these claims generally recites controlling a switch based on a control signal level and an *input leakage current threshold*. Because the cited references fail to disclose such elements, the cited references cannot support a *prima facie* case of obviousness with respect to independent claims 11 and 29.

As discussed above with respect to claims 1, 19, and 34, the Nevo reference fails to disclose a leakage current suppression circuit that conducts leakage current *leaking into* any system, such as a control circuit or terminal block relay assembly. Further, neither the Gernhardt et al. nor Vassos reference obviates the deficiencies of the Nevo reference.

Consequently, independent claims 11 and 29 are believed to be allowable for the same reasons provided above with respect to independent claims 1, 19, and 34. Accordingly, Applicants respectfully submit that independent claims 11 and 29, as well as their respective dependent claims, are allowable over the cited references.

Dependent Claims 4-6 and 21-25

Applicants additionally note that claims 4-6 and 21-25 depend from independent claims 1 and 19, respectively. As discussed above, the Nevo reference fails to disclose each element of independent claims 1 and 19. Again, Applicants respectfully submit that the Gernhardt et al. and Vassos references fail to obviate the deficiencies of the Nevo reference. As a result, dependent claims 4-6 and 21-25 are allowable on the basis of their dependency from a respective allowable independent claim, as well as for the subject matter recited in these dependent claims. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejection and allowance of claims 4-6 and 21-25.

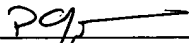
For these reasons, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103 and allowance of claims 4-6, 11-18, 21-25, and 29-33.

Conclusion

In view of the remarks and amendments set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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